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CHAPTER II

BASIS OF SUBSISTENCE

177 241 Since the basis of subsistence of the Maricopa and their allies has changed greatly since aboriginal days it is by no means easy to draw a picture of the original food quest. Even before white settlers appeared, Maricopa acquisition of wheat from Mexico had almost entirely displaced the cultivation of corn, and since that day dependence on traders' products has almost obliterated [439] what remained of their original habits.

262 184 The staples of the Maricopa and of the Halchidhoma while still on the Colorado seem to have been identical and used in much the same proportion. There is a possibility, however, that the Halchidhoma cultivated corn somewhat more than their Gila relatives and had access to more fish. In contrast, then, they depended less on mesquite and rabbits. This must remain an inference based on what is known of other lower California peoples, since Halchidhoma informants no longer know precisely what ancestral life on the Colorado was like.

22 [243] [462] The Maricopa seem to have depended largely on gathering mesquite beans, hunting jackrabbits, and on fishing. Relatively little corn was cultivated. The picture of the food quest drawn by informants shows that women were occupied every day gathering mesquite beans during the season, while the men hunted hard by for rabbits or fished. The quest was unceasing: "people starved in those days unless men and women kept at it all day long." Kutox maintained that in those days children were undernourished: "a child of two or more might not be able to stand [146] because it lacked food." On the other hand, Bartlett (1852) makes it appear that Pima and Maricopa cultivation was so great as to allow long periods of inactivity.[1]

137 Yet mesquite was abundant in the valley, especially in the

[1] Bartlett, *Personal Narrative*, II, 264. [Text continues on page 50.]

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horse to make decorative spots.) Both the fruit and the plant were called kălyă'p, "flat," for the flat leaf-like stems. 824

Yucca baccata grew in the desert to the north. The banana-like fruit was eaten fresh; also stored by splitting and drying. Plant and fruit were ĭtcakwa'tc. 222 [251]

Some stems and leaves of plants were eaten. A plant growing in the mountains (hence called âvi', "mountain") looked like asparagus and was bitter. The stems were roasted in ashes. A little plant, called mŭckwo', was washed and boiled. When tender this was squeezed out between the hands and eaten with salt. The leaves of âgwa'vâ, probably pigweed, larger than spinach leaves, were boiled and eaten with salt. This was gathered in the fall. 252

Mescal, the agave plant (maðĭ'l), was not much eaten because it did not grow in this locality. A few plants grew on the higher parts of the mountains to the south and more plentifully beyond in that direction. It was gathered by men because it grew too far away for the women to go. Most that they used was brought from the Papago country in cooked form. The growing plant was severed from its root by the customary chisel (n,ĭmtakĭ't or maðil,yĭmtakĭ'tĭc, "mescal–to cut off with"). This was a stick twenty inches long, two in diameter, flattened near one end to provide a chisel edge at one side. (The chisel edge was not at the end, as with other tribes.) This was held against the base of the mescal and hammered with a convenient stone or stick. The long leaves were trimmed short with a knife; the mescal hatchet of other tribes being unknown. One leaf was left long so that the heads might be tied in pairs, or they were fastened in pairs by a stick thrust through them. A man would bring home only six or eight, not a full load, because they were scarce. 222 [139] [262] [462] [439] 222 412

The mescal heads were baked in a pit. A fire was built in it, but the usual stones omitted. The coals were raked out, the ashes sprinkled a little, the heads laid on this, covered with dirt, then ashes and a little fire. If prepared late in the morning, they were allowed to bake all the following night. The short leaves remaining on the baked head were stripped off to be chopped up and mashed in a mortar. This mass was spread to dry on peeled 252

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423 own the land: we all owned it, so that a man could choose what land he pleased." Women also owned fields, that is, normally only widows who had no male members of their families to plant for them.

[133] Since floods were slow and mild on the Gila, a stream with low gradient and wide flood plains, there were no difficulties caused by a marauding stream necessitating relocation of the fields.

Boundaries came into dispute: such quarreling had its special name, xamĺtŏ'tà ak,e'vàm, "[boundaries] bristling side by side." This was one of the rare occasions when the dead were named, not in insult, but as warrant of ownership. "My father had his land over to there, but when you took it you pushed it [the boundary] over to here"; to which the other would reply, "No, my land extended farther to your side." Exasperating and [578] drawn-out quarrels arose over minute pieces of land. If they [627] finally reached the fighting stage, a third man was called on to decide. He might say, "Your land is good enough to that place, so give up this little piece for his benefit, so he will not have any more to say," or he would divide the disputed patch equally. [171] There were, however, no pushing contests or stick fights over disputed boundaries in the manner of the Mohave.[30]

Cultivation in all its stages was man's work, but gathering the ●462 harvest was woman's alone. At that time men were busy making [343] the store houses for pumpkins and watermelons. An old woman, with no men to help her, would, of course, plant for herself.

It is now difficult, with the old fields long done away with, to 423 discover what the ownership of field tracts may have been. But 428 it seems to have followed on this male occupation with cultivation that fields were, on the whole, regarded as the personal possessions of men. Inheritance was specifically said to be in the male line. Normally when a man died, the land was inherited by his immediate family: his widow, sons and daughters. Ultimately it came into the possession of the children. A daughter would get some one to plant for her. It may well be that daughters did 423 not transmit their claim.

768 During the period of mourning, the survivors made no use of

[30] Kroeber, *Handbook*, p. 744.

fish was cooked by men; women, however, cooked deer and mountain sheep flesh. The reason is not apparent.

Large mountain turtles (kapĕ'ṭ), about a foot across, were eaten; also by Papago and Yavapai according to my informant. These were usually baked in ashes; sometimes boiled. The shells were not used for any purpose.

Honey was occasionally obtained from the flower stalks of mescal, but these contain very little. This was the product of large bees (mŭspo'kwĭni'l,â, "black bee"). The classification of "bees" is rather interesting: working bees were called flies (xălyâsmo"kwĭlyâvi'na); another bee with a yellow back (not a hornet) was mŭspo'cĭlyâmŏ'kkakwĭ'sĭc; a fourth variety, resembling a wasp, was mŭspo'kwĭsĭ'c, "yellow bee." The nests of working bees were found and the insects killed individually, but their honey was not eaten.

A worm, called âmĕ' (more probably a caterpillar, since it was said to have a horn on each end) was caught, boiled, dried, and eaten.[17] They caught them in their hands in the spring and late autumn. There was a peculiar way of catching them: with one hand they caught the beast, broke off the end with the thumb nail, squeezed it out, and inserted it between the other fingers of the same hand. In some fashion they braided long strings of these, perhaps because the "worm" coiled around its fellows. Then they boiled and dried them. They were eaten dry or boiled. Dried "worms" were also heated in warm water and fried. The finger tips got sore gathering them.

Pets (n,âxa'tk, "my dog," any pet) may be conveniently described here. These were dogs and various birds. The chicken hawk was perhaps the sole bird deliberately excluded, because one who handled it would "get sick in the lungs." Turkeys were not pets.

Dogs (xatk) were said to be like present-day dogs; some black, others spotted. They were called by whistling or by calling their names. Several expressions were recorded: kaśi'k, kaśi'k, "come, come," govŭna'l,ŭm, "get out, go away," sĭkiyĭ'mdĭk, "go

[17] Said to travel rapidly. These are undoubtedly the same as the Pima ma'kŭm (*ibid.*, p. 81).

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also made for use in high water: these were two logs side by side with sticks tied across them. They used their hands for paddling and long punt poles. The Halchidhoma, like the Mohave, also ferried babies across the Colorado in large pots. These people were good swimmers; the Maricopa were not.

Fish were usually eaten fresh. The excess of a day's catch might be half broiled and hung to dry from the house beams. But no attempt was made to keep them longer than a week. Whether this was because such soft-fleshed fish cannot be successfully dried, or for want of knowledge or interest, I do not know.

Fish were either broiled or boiled with corn. In any event, they were always cooked by men, who served their wives before themselves. No reason was assigned for this, other than that it was so strongly customary as to be obligatory. Men never ate fish before their wives; when the wives had had enough they called their husbands.

Broiling was done by two methods. In one, the fish was always cut open along its right side near the backbone. If a man cut it on the opposite side, they made fun of him; told him to go back and grind his wheat (that is, that he was womanly, for he did not know how). The intestines cleaned away, the fish was spread open on the hot ground. Burning sticks were then propped over stones set around the fish so as to broil the upper side. All fish were treated in this fashion. They were broiled in this way very quickly. The other method consisted of cutting the fish along the belly, but not spreading the flanks. Again the coals were raked away, the fish laid side by side, and covered with ashes on which coals were heaped. It took all morning to cook them in this fashion.

They were boiled with salt. This took half a day. When done, finely ground corn, mixed with water to a thin gruel, was added to the pot of fish. The cook, always a man, stirred this, not round and round, but by inserting his stirrer down close to the sides of the vessel and lifting the fish. After the corn was added, another half hour was required to complete cooking. The stirrer used was a stick eighteen inches long, one and a half inches in

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252 [415] diameter, and wedge-shaped at one end. It will be noted that scales, skin, bones and all went into the mess. In fact, the enormous number of small bones these fish contained gave them no concern at all.

262 Shellfish and crayfish were probably not eaten, if they occur in these waters at all. My informants knew of no molluaks nearby and professed ignorance of the Colorado.

MEALS AND DOMESTIC HABITS

512 ●462 [513] [482] [415] Domestic duties began before sunrise. A woman rose and immediately began her preparations for the morning meal, the cooking utensils being conveniently at hand near her head. (They slept with their heads to the east: these articles were kept near the doorway which was on the east side of the house.) She then went to fetch water sufficient for the day's supply, carrying a large pot on her head balanced on a cloth ring. Each family had several large vessels for storing water, mounted on branching posts erected under the shade. Fetching water was a feminine task alone: they always made a point of having the storage jars filled before the sun rose.

252 [372] Cooking was done under the shade, with which each house was provided, in the summer, but in winter anywhere in the open. If need be they erected a little screen of arrowweed stalks thrust into the ground to keep off wind and dust. They only cooked inside the dwelling if forced to by bitter cold. There, as outdoors, the fire was not confined, as in a pit nor walled in. Cooking pots were supported on three stones. Today, a little trench is dug for the fire, the pot being supported on several iron rods or even green sticks set across, but I was assured this was not aboriginal.

252 415 Clay cooking pots and bowls, ladles of clay and wood, mush stirrers, and baskets were the utensils. For a people primarily pottery using, they put an exaggerated value on the convenience of baskets (the shallow bowl baskets obtained from the Pima) and held it highly awkward to have to do without. Stone boiling was unknown. The mush stirrer was three or four arrowweeds twined together near one end (Pl. XIV, *d*).

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Mesquite branches were considered the best firewood; of these the supply was abundant. Men would go out to burn down and break up wood, but they would not carry it home; that was a woman's task. Nor would they fetch water, grind seeds, nor ordinarily cook. Men, however, would kindle the fire to warm the house in the evening. A fire to cook by was built of several large chunks of wood at the sides with sticks between. The common palm drill was used to light it.

The preparation of meals was laborious rather than complicated. With mesquite as the staple, a large part of a woman's daily routine had to be given over to pounding it in a mortar and grinding it on the metate. The metate was also requisitioned for corn in all its stages and many of the wild seeds. Ability to labor long and rapidly at it was reckoned the chief of a housewife's accomplishments; so much so that every prospective bride was set to work grinding by her mother-in-law to prove her proficiency. The wooden mortar came in for far less use. In it they broke up the mesquite beans preparatory to grinding on the metate, hulled various seeds and shelled corn. The principles of cooking were simple and few. Mesquite flour and tule pollen were preserved in cakes made by packing layer after layer into a hole. Other foods, vegetal and flesh, were half-broiled, roasted, or boiled to be dried for storage. In the final preparations for the meal, great use was made of baking in the ashes: seeds, stems, corn, and small grain were treated in this fashion.[33] For this the ground was heated, and the ashes with a few live coals raked back over the article. Boiling was, however, the mainstay in cooking, at least for vegetal products: mesquite, corn, seeds, pumpkins, squash, and beans regularly went into the pot. Mesquite gruel, and in later days wheat gruel (pinole), was commonly mixed with other foods: in fact, ground wild seeds were used for little more than to give variety to the flavor of the gruel. Pit roasting was rare, since mescal and cholla beans were obtained only infrequently. Parching with live coals in shallow bowls

[33] The Papago also roast rabbits in ashes (Lumholtz, *New Trails in Mexico*, p. 334).

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edition of the dwelling; an open-sided, flat-roofed shade; a small structure resembling a gable roof set directly on the ground, built as needed for a storage house, for purification rites, for a girl's puberty rite, and as a menstrual hut. A small hemispherical sweat lodge was also built. Sometimes a temporary kitchen was made by erecting a screen of weeds to windward of the cooking place.

Housebuilding was man's work alone, whether a dwelling, storehouse, or meeting house: the women did not assist. A man was helped by his male friends and relatives in the construction of his dwelling. In building a meeting house, all the men of the village were engaged and built it in a day.

Dwellings stood indefinitely, until some one of the inmates died, when they were torn down and burned. This also happened on the infrequent occasions when relatives who had married were mourned as dead. A new house was erected elsewhere, so that the community was constantly crawling away from its original location. So great was the decimation from disease and warfare during the past century, that the shifting went on with some rapidity despite the localizing ties of available water supply and tillage. The movement may have been somewhat less in earlier times, but there is no doubt that the habit of shifting the locus is old and ingrained. Houses did not suffer much from the elements; rainfall is slight and confined largely to the spring, snow practically never falls. The dirt covering of the house needs no renewal; at most, it must be patched here and there.

The size of the dwelling naturally depended on the number of inmates it was intended to house. An average dwelling was about eighteen to twenty feet in diameter, larger houses perhaps twenty-five feet: Bartlett (1852) says fifteen to twenty-five feet.[3] It was built on level ground, no excavation being made.

For the ordinary dwelling, four cottonwood posts were set in the ground at the corners of a square, measuring nine or ten feet. These stood as high as a man could reach, about seven or eight feet, so that he could work at the ridge. (It must be remembered that these people are quite tall.) Yet Bartlett wrote, "These

[3] Bartlett, *Personal Narrative*, II, 234.

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291 pieces of deerskin wrapped around the leg below the knee, bound in place by a strip of skin.

Although skin shirts and moccasins are credited to the Pima,[15] the Maricopa made no use of them.

The breechclout was called wemakxa'vâ; the bark skirt upu'i
192 or upu'iavâxai (avâxai' being now a woman's skirt of any mate-
291 rial); the under-aprons tilyuθi'k; the belt amĕ'l; the robe atkwĭnyĕ'p; the sandal haminy^{i}o' acika'tĭs (haminy^{i}o' being now any shoe), a woman's sandal xamanyu' hacâgya'dĭc ("cut out"); the legging kŭm^{a}ĕ't.

887 Garments were made by old people; old men making breech-
462 clouts and being repaid with rabbits or whatever the recipient acquired when hunting; old women made the bark skirts. Men alone made bark or hide sandals.

[481] Old people carried staffs (n$_{y}$icao'$_{RA}$, "for the old"), some four and a half feet long.

302 The hair was worn hanging to the waist in back and cut in a bang at the eyebrows. But while the back hair of the women fell in a loose mass over their shoulders, men arranged theirs in some twenty strands, partially braided but primarily rolled. Some men let the hair at the sides hang loose as low as the breast, braiding only that at the back. There was intense pride in its appear-
[832] ance: a handsome man was reckoned one whose thick, glossy hair hung in a profusion of rolls quite to his waistline. This is the habit and attitude of the lower Colorado tribes, yet there was no attempt to lengthen it artificially as there. My Halchidhoma informant Kutox had his scanty, short hair in six braids lengthened with other human hair and horse hair, but he stated that he is the only one who had ever done this. Formerly when an old man's hair got short, he bunched it at the back of the head, where it was held in place by a woven band.[16] For convenience a man wrapped one roll around the others at the back of the head to hold them out of the way.

[15] Russell, *Pima Indians*, p. 157.

[16] My notes are not quite clear whether this was bound about the back hair alone or worn as a head band.

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CHAPTER V

MANUFACTURES

POTTERY

323 The Maricopa were essentially a pottery using people in the sense that the central Californians were basket users. To make the contrast even more explicit, we may compare them with a people in the same general area, the Havasupai, who, like themselves, used both pots and baskets. Where the Havasupai household had a dozen baskets standing about, where baskets were used for every domestic purpose, the Maricopa substituted pottery.

923 415 Every Maricopa household held innumerable pottery utensils: jars, bowls, parching pans, ladles, etc. Even today the common cooking pots in practically every house are of their own manufacture. Quantities of pottery are now made for the tourist [439] trade, which while differing somewhat in size, shape, decoration, and finish, are nevertheless made by the ancient technique. But despite the huge quantity they were accustomed to make, Maricopa pottery was, as a matter of fact, relatively a poor product.

323 [462] [868] Maricopa and Halchidhoma made pottery (kwîlyâoma't) in exactly the same way. This was wholly a woman's occupation and a year-round task. They began at the art quite early: for instance, a five-year-old girl was seen following the mannerisms of her mother. She worked up a ball of mud, beat it flat on the bottom of an old pot with a paddle, and pinched up the sides to form a tiny vessel, which she set in the sun to dry.

The forms were almost wholly wide-mouthed vessels and bowls (Pl. VI)[1]. This is generally true of hand-made pottery the world over except in such areas of pottery specialization as Peru, in

[1] Specimens shown in Pl. VI, Washington State Museum: *a*, 2-21188; *b*, 2-11893; *c*, 2-11889; *d*, 2-11896; *e*, 2-11879; *f*, 2-11891; *g*, 2-11898; *h*, 2-11897; *i*, 2-11884.

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286 blankets, just large enough barely to cover a single person. Larger ones took too long to weave. A blanket of the usual size was three weeks in the making; preparing the cotton, spinning the
286 needed amount of yarn, and completing the weaving. Blankets
439 were traded to the Papago for horses. According to my information the Papago did not weave, but Curtis gives evidence that they did.[7] The rate of exchange in the middle of the last century was a single blanket for a poor horse, two for a good one.[8] This furnishes some index of their high value, for the Maricopa were so poor in horses, that they still thought nothing of going long distances afoot and considered even a relatively poor horse a worthwhile acquisition. The only horses they had were those
[231] gotten by such trade. The Papago, on the other hand, were relatively rich in horses since they were situated much nearer the Mexican villages.

286 Weaving was properly man's work. There was, however, a di-
462 vision of labor such that preparing the cotton (ginning) was done by women alone, both sexes spun yarn, while weaving was solely in the hands of old men. When cloth and blankets became avail-
[177] able from traders, the old art waned and man's part in it lapsed entirely. Nowadays only women weave, making only cradle bands as part of their construction of cradles. Only commercial yarns are now used. Some knowledge still persists among the older men, however: Kutox, who had never woven, demonstrated with a spindle, exhibiting the typical draft motion and smoothing the yarn like an accomplished spinner. Both women
114 and men formerly wove bands, according to Hrdlička's informa-
286 tion of 1902 and 1905.[9] While the objects he discussed in his brief
462 account were cradle bands, it is conceivable that his informants were implying that women wove cradle bands while men made their own belts and headbands, if they were not in fact referring only to the period of transition. More serious is the implication of his statement that an old Maricopa made several blankets in

[7] Curtis, II, 6, 82, 111, 116.

[8] The same rate prevailed among the Pima (Russell, *Pima Indians*, p. 149).

[9] Hrdlička, *Maricopa Weaving*.

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his youth. It was, by my evidence, an old man's art, yet this observation that a young man wove or assisted may be true. 286 [162] [114]

Cotton was alone used in weaving. Such possible substitutes as mountain sheep or dog hair were not used. Nor was sheep wool used since the advent of the whites: so far as I know, the Maricopa neither own sheep now nor had them formerly. The cotton cultivated in earlier days was white, not brown; growing [248] on bushes waist-high or little more, and not like the man-high bushes of modern varieties of cotton grown in this district. It proved impossible to obtain any specimens of ancient cotton: it has entirely disappeared. Hrdlička observed (1905):

> According to information obtained from an old Maricopa, about forty years ago the people of his tribe planted native cotton, with which the men wove large decorated blankets.

They ginned the cotton by first beating it with a little stick. 283 Then, spreading it on a flat stone, they rolled a smooth arrowweed across it to remove the seeds. This lap was layed aside; then others were similarly prepared and laid on the first. This was women's work alone. Day after day was spent in preparation until the necessary amount was accumulated.

The cleaned cotton was then spread on a smooth spot on the ground, over which clean sand had been sprinkled. A scraped arrowweed, about the size of an arrow, was strung to form a taut little bow. The bowstring was held close above the cotton and then plucked. The "tooth" of the string caught up the loose fibers; its vibration wrapped them into a compact roll around the string. This was then pulled off the string to serve as a sliver ready for spinning.[10] The first step was to roll the sliver into a loose yarn between palm and thigh. 283 413

[10] The cotton plucking bow must have had an interesting history in America: its ultimate source was Asia. My Maricopa informant ascribed its use to the Pima as well. He did not know whether the Papago had it. Doubtless they had, for, farther south Dr. Ralph Beals found it in 1931 in use among the Mayo (near the Rio Mayo and Navajoa, Sonora) for plucking wool fibers for spinning. The source for these tribes must have been the missions of northern Mexico. It occurs in South America, where Nordenskiöld records its distribution through the southern Amazon basin and southward. He writes: "We have here a cultural element that the Indians probably got from the Portuguese, presumably, as in the case of [171]

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285 [177] [415] Recently a large storage basket (kwĭltŭ'n) for beans, corn, and wheat was imitated from the Pima. (In earlier days storage was in large pottery vessels.) Such baskets have rounded bases, with their sides tapering to a mouth but half the basal diameter. One specimen was thirty inches tall; its greatest diameter, near the base, the same; its mouth fourteen inches across. These were coiled on a foundation bundle of the longest wheat straws obtainable, the sewing element being strips of willow bark. The space between stitches was equal to the width of the sewing element. Since the foundation was about one half inch diameter and the bark strip nearly as broad, the result was a checkerboard pattern over the whole surface. Coiling of the base proceeded counterclockwise (looking into the basket), presumably on the near edge with the free end of the foundation to the right. When the side had been built up to a height of about a foot, the basket maker seated herself inside to work. This would bring the free end to her left. This basket was identical with those figured for the Pima by Russell and Kissell.[17]

[171] [415] Huge nest-like storage baskets or granaries (sákwi'n) were made, which were identical with those of the Pima in shape and technique of manufacture.[18] These were cylinders, three to five feet in diameter and somewhat less in height, without top or bottom, but set on a crib-work platform and covered with arrowweeds (see p. 90). The technique was a crude coiling, the material arrowweed. They were woven counterclockwise, working at the outer face on the near edge. Such granaries were constructed by both men and women. [462]

[415] A sifter (cayaaa'c) was elliptical, shallow, and about a foot long. Thin willow twigs laid transversely and longitudinally were bound to a willow hoop.

[854] Basket technique was also used in the manufacture of cradle hoods.

[17] Russell, *Pima Indians*, p. 144; Kissell, *Basketry of the Papago and Pima*, pp. 184–85.

[18] Kissell, *op. cit.*, pp. 172 f., esp. p. 178. Bartlett mentioned only the type described in the preceding paragraph for both Pima and Maricopa, not this nest-like granary (*Personal Narrative*, II, 235).

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The rectangular baskets with lids in twilled, plaited weave and the sleeping mats made by the Pima[19] were not among Maricopa products. 285

VARIOUS TECHNIQUES AND TOOLS

Skin dressing.—Hides seem to have been but little used, not so much because deer and fur-bearing animals were rare, or that they were indifferent hunters, but because few articles were made of dressed skin. Correlatively the skin dressing process was rudimentary. Here again their habits coincide with the lower Colorado tribes. The upland tribes of Arizona were proficient workers in skins, those of the Colorado-Gila lowlands were not. 281 [171]

The uses of hides were few: the only uses cited were thongs, quiver, and shield. Rawhide sandals have come into use since cattle were obtained. [177]

A deer carcass was flayed by slitting down the belly from the neck, cutting along the inside of each leg, leaving the hoofs, but taking the head skin.

To tan the hide (k'wĭl,a), the flesh side was spread with parched seeds of the giant cactus fruit (the residue after a drink was made from it) and the skin folded with the flesh side in. This was to absorb the grease (?). When opportunity came to work the skin, it was first soaked in water. It was then slung over a smooth slanting pole and the flesh side scraped with a sharpened stick, not a stone. The hair was probably removed with a split bone scraper. The hide was then pounded with a stone while lying folded on a flat rock, available only in the mountains. When it was soft, it was further worked by rubbing with the hands. My informant had heard that deer brains were sometimes used for tanning. Pumpkin seeds were not used, as by the Cocopa, nor were skins smoked or dyed. Skins were also tanned with the hair on: fox, coyote, wolf, and mountain lion. (There were no bears in Maricopa territory.) Skin dressing (k'wĭ'ltamavĭstcu'm, "hide softening") was the work of men alone. [412] [136] [462]

Willow bark blankets may have been made, but it is very doubtful. Kutox described these, called xacĭl,ĕ'p, as made by 286

[19] Russell, *op. cit.*, pp. 93, 134, 145, 147.

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The strongest were of mescal fiber. Bundles of the dried leaves of this plant were brought home, pounded, the connective tissue shaken out, and the fibers rolled into rope.

Head rings (kwĭcko') were used by women to support pots and other articles carried on the head. In earlier days, these were made of the inner bark of the willow; now they are simply bound rolls of old cloth. The neighboring Pima and Papago similarly use rings of willow bark and less commonly plaited of agave (mescal) leaf,[93] but it is unlikely that the Maricopa made the latter.

Metates and mortars.—These were the principal utensils for the preparation of meals. A man must not even lay his hands on them: if he were discovered using them, he would be ridiculed as a berdache. Metates were used somewhat more than mortars even in the old days when mesquite, which required pounding in the mortar, was the primary food.

The metate was a flat slab, roughly rectangular, with one prepared face used for grinding with a hand stone or mano. The metate was of a granite-like stone; the mano of a hard, close-grained sandstone. They were considered very valuable since it required a long time to work these tough stones into shape and they were constantly needed for household tasks. Both were formed by pecking with any convenient pointed boulder. Like the Pima, stone axes found in nearby ruins were also used to dress them. One small metate seen was roughly twenty-one inches long by fourteen inches wide and two inches thick. It was perfectly flat transversely, but, on its working surface, slightly concave longitudinally. The mano in use with this was as long as the metate was wide, and had a width such as to be conveniently grasped (fifteen inches long; five and a half inches wide; two inches thick). It was of rectangular cross-section, slightly convex in a longitudinal direction on top, with a true flat surface on the bottom (i.e., the grinding surface) which rose at an angle near each end.

When the metate was to be used, the woman knelt behind it.

[93] Russell, *Pima Indians*, p. 113; Kissell, *Basketry of the Papago and Pima*, p. 159.

1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
Maricopa

845 apply only to twins as children, for aged Kutox told me he had twin younger brothers, the one surviving being now an old man.

J——, his older sister told me, is said to be from the village of twins. At birth he was so tiny they did not think he would survive. When he was four he was hardly bigger than a baby of six months. His mother took him to all the shamans, who could do nothing. Finally she applied to one married to her mother's sister. He declared he had seen this boy in his dreams. He directed, "Bring the boy, and let him stay a month if he likes me." The old shaman told them to give the boy everything he wanted, which they did. The old man gave him a horse. When the boy wanted a new horse, he would say, "Take the old horse back," which meant that the shaman should give him a colt, which he did. J—— is now a strapping six-footer of thirty.

A curious point was that the first born of twins was called the younger. The reason given was that one always let a child, a younger person, go through a doorway first. The twins called [601] each other in this fashion younger and older brother.[1] It was absolutely necessary that some such decision be made, considering that age distinctions figure at every turn in the kinship system.

163 845 Plural births other than twins were unknown to my informants. Mrs. Redbird knew of three cases of twin births among people now living, a number which might have been predicted in a population of less than three hundred. Twins were called xavŏ'kc, "two."

847 It is difficult to tell how frequently abortion was practiced in the old days: it is common enough today. A cloth was tied tightly around the abdomen, draughts of a boiling hot tea made of iciu' (a plant growing near the river) were taken, and the constricting process repeated until the embryo was killed. (My informant had never heard of pressing the abdomen on a rock.)

854 [462] The cradle was prepared before the baby was born. Women gathered the materials for it because they knew best what the size should be, but men always put the frame together since they could lash it more tightly. Various women might prepare its several parts, which were assembled by some older woman of the family. It was distinctly preferred not to use a cradle that had belonged to some other woman. A cradle might be kept for the successive use of one's own children, or one gotten from a near

[1] This explains why twins in the myths are called older and younger brother.

1:Spier E-5 (1929-1933) 1933 NT15 River Yumans NT15
Maricopa

relative. If the older child had been sickly, however, it would be kept for a long time before it was used again. A second, larger cradle, of exactly the same type was made when the first was outgrown after two or three months.

The cradle was the flat carrying-board of the type used on the lower Colorado River: a narrow arch with long parallel sides to which transverse rods were lashed and provided with a broad hood of basketry. The supplemental articles needed to cradle the child were a bark mattress, a pad to go under the shoulders, cloths with which to wrap the infant, and two bands to bind it to the cradle frame (Pl. XV).

The cradle showed the sex of the infant at several points: by the spacing of the cross-pieces of the frame, the decoration of the hood and the objects tied to it, and the design of the upper binding band. As a matter of fact, they used what they pleased in assembling a cradle. A specimen in use for a little girl, which I bought,[2] had been made for an older brother. It had a boy's frame, while the hood and band were those of a girl. But it lacked the extra mattress required for a girl.

The arch of the frame was tough mesquite root, bent into shape and tied until it dried. The transverse rods were arrowweed, lashed to the arch and wrapped with split small roots of mesquite, chosen because of its strength. These rods were not long enough to rest on the arch, but lay between its side arms. The lashing passed twice around one arm, was wrapped around the rod for its whole length, wound twice around the opposite arm, and the free end tucked under the lashing (Pl. XV, *b*). A man was requested to lash the rods since it took great strength to get the lashings taut. The number of cross pieces depended on the sex of the infant: for a boy these were seven or eight evenly spaced; for a girl one less, leaving a wider space about the middle of the frame, so that the girl would grow up to have fleshy buttocks.

The mattress was made of broad strips of willow bark arranged in three bundles, each bent in an arch and tied (Pl. XV, *c*).

[2] Washington State Museum, No. 2-11913.

2:Bartlett G-5 (1850-1853) 1854
NT15 River Yumans NT15
Pima UW29

as his means will permit, to compensate them for the loss of their daughter, whose services are to them a matter of consequence.

Indian Flute, and Rattle of Deer's Hoofs.

Among both the Coco-Maricopas and the Pimos, the women do the principal part of the work. Besides taking care of the children and attending to the household matters, they grind the corn, make baskets, gather mezquit beans, help till the ground, and sometimes spin and weave.

The men plant and gather the crops, and take care of the animals. This I believe is all they do; and as the performance of these duties is not a very onerous task, they are idle the greater portion of the time. Their implements of husbandry are steel hoes and axes which they obtain from the Mexicans, harrows, and occasionally a long-handled spade. Grinding corn on the *metates*, or stones, is a work of great labor, and comes hard on the poor women, who are obliged to get upon their knees, and exert the whole strength of their arms

2:Bartlett G-5 (1850-1853) 1854
NT15 River Tumana NT15
Pima N429

and bodies in the task. I have seen women thus employed when the thermometer stood at 110°, while their lords lay stretched out at length on their backs looking on.

Water is invariably brought by the women in large earthen vessels upon their heads resting upon a small cushion. Some of these vessels hold six gallons. This mode of carrying burdens, by which the body is kept in a perfectly erect position, tends greatly to develope the chest and add to the general beauty of the figure. Hence we see among the Indians, as well as among the lower class of Mexicans, forms which Walker might well have taken for models in his "Analysis of Beauty in Women."

As the manners and customs of the Pimos and Coco-Maricopas are the same, with the exception of their rites of burial, I shall include both in describing these customs; although there is little doubt but that the knowledge of the arts which they possess originated with the Pimos. Cotton is raised by them,* which they spin and weave. Their only manufactures consist of blankets of various textures and sizes; a heavy cloth of the same material used by the women to put around their loins; and an article from three to four inches wide, used as a band for the head, or a girdle for the waist. The blankets are woven with large threads, slightly twisted and without any nap. They are made of white cotton, and are without ornament of colors or figures, save a narrow selvage of buff.

* I brought home with me the seeds with samples of this cotton, which was pronounced equal to the best Sea Island. The seeds I distributed among various planters.